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ABSTRACT

The paper describes the basic features and techniques of a specific kind of discussion group, the Grouptalk. Grouptalk, especially useful in the elementary grades, is a formal discussion of a question by a small group and a leader. Participants follow the specific rules that all contribute relevantly to the discussion and that all help in the effort to summarize it. Basic features of a Grouptalk session include a regular weekly meeting from 30 to 45 minutes in a special room equipped with a chalkboard, tape recorder, and definition cards. The definition cards illustrate the rules of Grouptalk; the question written on the chalkboard enables the group to refer to the topic at all times. Three to six children comprise the most effective group. The functions of the leader are to guide strategy, to keep the group relevant, and to see that a summary is achieved. Cognitive skills enforced by Grouptalk include being relevant, summarizing, integrating, categorizing, defining terms, pinpointing causes of disagreement, and becoming conscious of strategy. Skills gained through effective participation in Grouptalk are the ability for self-expression, cooperation, and leading a discussion. Implications for the use of Grouptalk in evaluating students, in curriculum construction, and in psychological research are noted. (KC)

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Occasional Paper No. 10

The Grouptalk

BY

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Introduction

In preparing new curriculum materials, we place much emphasis on not merely increasing children's factual knowledge, but rather on improving their cognitive skills. This emphasis makes it important to investigate various new ways of instructing. The "Grouptalk" is one device which specifically attempts to improve a cognitive skill; it was developed by Dr. Whipple while she was working with children who were being taught an early experimental version of "Man: A Course of Study."

Dr. Whipple received her doctorate from Radcliffe College. Her career has included periods of college teaching, therapy, and research; the latter has been in the fields of social psychology, clinical psychology, and educational psychology. At present she is a consultant teacher at the Underwood School in Newton, Massachusetts, doing additional research to follow up some of the questions raised in the present paper, especially how to make the Grouptalk technique described here suitable for lower age levels (second graders) and what benefits can be derived from it in other areas, for example, in teacher training.

PETER WOLFF
Editorial Director

January, 1967

The Grouptalk

by Babette S. Whipple

This paper describes a specific type of discussion, the "Grouptalk," and explores its usefulness. This pedagogical device with an odd name evolved during the summer of 1965 as a by-product of E.S.I.'s Elementary School Social Studies Project. My goal, at the outset, was to investigate children's thinking by teaching them how to participate better in a formal small group discussion. Considerable disagreement over the meaning of the phrase "good formal discussion" made it imperative to find a distinctive name for the new activity I had in mind; hence, "Grouptalk." Although I had no firm convictions on how to improve children's discussions, neither had anyone else as far as I knew.

General guide lines emerged from a consideration of contemporary trends in educational goals. Today we stress the importance of preparing children for the world of tomorrow, where the extraordinary acceleration of technological change will have made obsolete the need to transmit today's know-how by creating new technologies and social problems for which there now is no specific relevant body of information. In a world of change, goals of education change. Today's educators are increasingly aware of the need to develop curricula which will equip children to meet the unknown world of tomorrow. The Indian Minister, Ashok Mehta, has said, "In former times the teacher could provide his students with a map to guide them through life; now the best thing he can give them is a compass." The compass is understanding. Over fifty years ago Alfred N. Whitehead defined education as "the acquisition of the art of the utilization of knowledge." He cautioned against the mental dry-rot induced by educating with inert ideas, "ideas received into the mind without being utilized." Current terminology describes Mehta's compass and Whitehead's art under the rubric of "teaching for understanding."

Still another trend in the current statement of the goals of education is the emphasis placed on helping children gain the

emotional maturity that is a *sine qua non* for academic accomplishment. Increasingly the school is seen as the place where children should be helped to increase their learning capacity as well as their cognitive skills and their basic store of information. Creativity, flexibility, understanding – these are among the qualities educators strive to achieve. The traditional school methods of memorizing subject matter are seen as poor techniques to prepare today's youth for their tomorrow.

Roger Revelle lists some of the habits of thought, attitudes and values that he believes should be instilled by the new education:

> "Problem-solving ability; belief in experimentation, and empiricism; love of innovation, creativity; self-confidence; optimism, ability to continue learning throughout life; bringing out individual abilities; self-discipline in work; co-ordination between hand and brain; public morality and responsibility; management and decision-making ability; ingenuity and inventiveness; living harmoniously with other people."

Looking at group discussion within this broader context, it seemed clear to me that I should attempt to mold it into a flexible tool for future use. I assumed that this could best be accomplished by helping children become aware of the factors involved in a good discussion. Self-consciousness of the process would, along with practice, improve performance. Fifth graders (the children with whom I worked) should gain some mastery of the basic elements: understanding the question, remaining relevant, and summarizing the results. I assumed further that the children would learn more about the art of discussion if they became active participants. This would be more likely, especially for shy and inarticulate children and those who had little confidence in the value of their ideas, if the atmosphere of the discussion session were supportive. The implications of this philosophy became the cornerstone of the discussion procedure. Children's ideas, whether good or bad, correct or incorrect, would be allowed full expression so long as they remained relevant to the topic under consideration. As leader of the discussions, I therefore would avoid the WHAT of the discussion in favor of concentrating on the HOW. With these guide lines established, the project went forward.

Soon after its inception, Henry H. Atkins, Principal of the Underwood School in Newton, where the E.S.I. summer session

was held, became an active collaborator. Ten sessions were held with fifth grade children. These formal discussions, we felt, did provide insights into the nature of children's thinking and did increase the relevance of their participation in discussions and in their capacity to summarize. We were not particularly surprised to find positive results. What astonished us was the wealth of additional, unanticipated gains our Grouptalks yielded for teachers and children alike. The new pedagogical device was powerful, of wider scope than initially envisaged. Besides teaching children to participate more meaningfully in group discussions, we found we were increasing a variety of cognitive skills and affecting basic attitudes toward thinking. We were also getting to know the children and becoming acquainted with facets of their personality and aspects of their thinking besides those revealed by classroom observation. The sessions were exciting.

Daniel N. Washburn, a research colleague, also participated in these sessions and was co-author of the initial report. His interest centered on aspects of children's thinking that emerged as vivid phenomena under the searchlight provided by the group discussion.

It was the enthusiasm of Mr. Atkins for the Grouptalk as a novel pedagogical technique that led to explorations of its potentialities for use in the classroom. We wondered what factors were relevant to its success. What were the repeatable and necessary elements in a Grouptalk? I became more engrossed with the Grouptalk as a potential addition to the school curriculum than with it as a tool for psychological research. In a sense this paper represents an outgrowth of our on-going dialogue on the topic: discussions for school children. His sustained interest and his wisdom with regard to teachers as well as children were essential in bringing the Grouptalk from its tentative beginnings as a method of investigating children's thinking to its present state as a promising multipurpose tool, pedagogical, evaluative and research.

During the fall of 1965, with the generous cooperation of several Underwood School teachers, we refined the technique by conducting another two dozen sessions. Patricia W. Asch, Ethel B. Cutler, Marjorie Stein and others at E.S.I. participated as Grouptalk leaders and joined in our discussions of it as a pedagogical and evaluation device. The next step in the evo-

lution of the method was a result of Dr. Jerome S. Bruner's request to prepare a teacher's manual on how to conduct a Grouptalk. Trying to communicate the essentials to teachers led to the discovery of important features of our technique we had not yet verbalized. We resumed explorations of the technique in the spring of 1966 by conducting roughly a dozen discussions with first graders and by writing the present paper. Some of the ideas expressed here emerged from discussions with two authorities in the field of small groups, Professor Robert F. Bales of Harvard and Professor Robert Chin of Boston University.

Grouptalk continues to evolve an interesting identity. Much remains to be discovered about its characteristics and its potentialities. We hope these introductory remarks have conveyed some idea of the exploratory nature of the discussion sessions. At the end of the paper we will look briefly at areas in need of further exploration. The main focus of the paper, however, is a description of the basic features of the Grouptalk and its potential usefulness as: (1) a multi-purpose technique in the school curriculum, (2) a helpful device for curriculum builders, and (3) a tool for psychological research.

Definition and Purpose of the Grouptalk

Grouptalk is defined as:

> *a formal discussion of a question by a small group and a leader following the specific rules that all members of the group contribute relevantly to the discussion and that all help in the effort to summarize it.*

The definition needs elucidation. The Grouptalk is formal only in the sense that the discussions are limited by the specific rules. The atmosphere is not formal. The necessary constraints imposed by adherence to the rules are productive; they do not discourage lively exchanges of honest opinion. The definition specifies the subject matter of the discussion in only one way:

the topic must be presented in the form of a question. The content of the question is left to the discretion of the leader, or even to the wishes of the group. "Small group" means three to six participants, or children in the present context.

Implicit in the definition are three primary functions of the leader: (1) to direct strategy, (2) to keep the group relevant, and (3) to see that a summary is achieved. The leader's participation in the discussion should encourage the children to focus on talking to each other rather than on talking to him. Also implicit is the fact that from the beginning the leader shares with the group the responsibility for ensuring adherence to the rules. By doing this, the teacher prepares for a gradual transfer of leadership to a student. The definition, it is important to note, states the discussion is to be held "by a small group and a leader." It does not say "adult leader."

The outstanding lesson learned from writing the "Talk to Teachers" concerns a feature essential to the Grouptalk, but not explicit in its definition: the fact that *content is of subsidiary interest*. Although all-important in usual small group discussions, content is of minor concern in the Grouptalk. We learned it is very difficult to convey to teachers the importance of this feature and explain unequivocally what is meant by it. Briefly, we feel that to fulfill properly his function as leader in this formal type of discussion, the teacher must focus on the *how* of the discussion while disregarding the natural urge to elicit information and to correct errors. Grouptalks are not vehicles for communicating information. They teach children *how* to think, not *what* to think. The teacher concentrates his attention on the process rather than on the content of the discussion.

Our insistence on this cardinal rule for Grouptalk leaders is based on two lines of reasoning. First, we firmly believe that the multiple gains derived from this type of small group discussion emerge only when the leader restricts himself to comments about the discussion process. He must not enter into the children's discussion of content. When he reverts to his conventional focus on content, children tend to lose their involvement in the subject matter and become uncreative. They feel free to assume responsibility for what they say only when the leader relinquishes his control by remaining silent on matters of content and by accepting *all* of their relevant ideas, whether they be true or false. The assumption of individual responsibility for thinking

is the magic ingredient, we believe, in the effectiveness of this pedagogical tool for children.

The second reason for adhering to the cardinal rule, i.e., to refrain from correcting misinformation and from asking leading questions, is that there are other ways and other times in the school curriculum available to the teacher for teaching students factual material and for correcting misinformation noted during the Grouptalk session. A related point, as we shall see in the section on evaluation, is that a good Grouptalk session can provide the teacher with valuable insights about various kinds of misinformation that need correcting.

Our experiences indicate that all teachers feel they are not being true to their profession when they allow children's incorrect statements to go unchallenged. They believe that errors uncorrected will be perpetuated, and perhaps even more firmly entrenched because of the vividness of exchanges during the sessions. It is only with great difficulty at first that teachers can refrain from correcting misinformation or eliciting new information through the use of leading questions. After her first observation of a Grouptalk session an experienced teacher commented:

> "I can understand his (another teacher's) reactions. The compulsion to direct, control, admonish, restrain—in other words, to regulate the children's conduct—is irresistible. Will all teachers react this way? Will not involvement of teachers in this Grouptalk project mean inculcating an entirely new set of attitudes?"

Fortunately, feelings such as these do not seem to interfere with the ability of teachers to be good Grouptalk leaders. Nor do they necessarily last long. The following week the same teacher wrote:

> "Conducting a Grouptalk turned out to be less complicated than I had anticipated. I found I felt at ease in leading the children's discussion and in re-directing their attention at various times."

Teachers often successfully avoid focusing on content without knowing it. One teacher's first attempt to lead a Grouptalk resulted in an excellent session, yet she mistakenly assessed her interactions with the children as too directive. Our emphasis on the frustrating necessity of being nondirective with respect to informational content was the source of her confusion. She

forgot the equally basic need on the part of the leader to help keep the discussion relevant; because she had been directive in this way she concluded she had interfered with content:

> "Despite the obvious success of the discussion, I felt severely restricted in not being able to *direct*, to *correct* and *contradict*. Although the students mentioned many valid differences between humans and animals and although they did not stray from the topic, I thought I failed as a nondirective leader. I kept asking questions such as: "Would you explain what you mean by that?" "Can you tell us more?" "What do you think about his comment?" "Do you agree? If you disagree, please say so." "Why do you think that?" However in spite of my doubts, Mrs. Whipple stated that these were very nondirective questions and that I was not answer-pulling. As a teacher I felt frustrated in not being able to correct misconceptions: Kay felt that animals had ceremonies and that parrots could be taught to read. I wanted simply to *tell* her that these ideas were incorrect."

What the Grouptalk is Not

The preceding comments on the cardinal rule of the Grouptalk have, I hope, helped to clarify the need we felt to identify this type of group discussion by a special name. It is new, yet easily mistaken for other types with which we are all familiar. A name of its own differentiates it from conventional forms of group discussion, thereby calling attention to characteristics peculiar to it and necessary to its efficacy.

The Grouptalk is not: (1) a discussion conducted with the classroom as a whole, or (2) a bull session that rambles on from topic to topic. In a good Grouptalk the discussion may flow freely, the atmosphere may be like that of a bull session, but channeling by the rules—leader and group working together to follow them—keeps everyone's remarks relevant to the topic under consideration. (3) Nor should it be confused with a classroom small-group discussion. In such discussions with a few children at a time, the subject might be a social studies lesson, plans for a forthcoming play, or a science project. Typically the teacher involves all of the students in the discussion and tries to keep them relevant. The purpose of these discussions, however (and here we get to the heart of the matter), is to increase the children's factual knowledge, to enlarge the scope

of their understanding, or to help them decide on a course of action. The Grouptalk leader, on the other hand, attempts none of these things. His purpose is to help the children become more skilled in the art of thinking while teaching them to be better participants in a discussion.

Finally, (4) there are important differences between the Grouptalk and the Socratic dialogue, although both have as their aim the stimulation of thought. The discussions led by the Greek philosopher show the imprint of a wise man, a person who knew many of the answers to the questions he posed. By carefully selected questions Socrates tried to elicit from his respondents an integrated world-view, one which challenged the easy acceptance of everyday, commonplace Athenian beliefs. Today's teacher who knows where he wants to lead the students and is adept in guiding them with questions through the maze of implications in their statements can be effective when conducting a Socratic dialogue.

The teacher who wants to provide a compass rather than a map for his students is more apt to enjoy the challenge of the Grouptalk. Paradoxically, the Grouptalk leader need not be wise. He need not know the answer to the question he has asked. In fact, it is much better if he does not have in mind a specific answer that he hopes the students will discover. If he is a good leader, the children themselves will open up new paths of thought—for, when freed from adult restraints, their ingenuity and imagination are exciting to follow.

Basic Features of a Grouptalk Session

The definition of Grouptalk, we have seen, determines to a certain extent the manner in which it should be held. There are tremendous variations possible, however, depending upon the quality of the leadership and on the age and experience of the participants. The brief description in this section of the

procedure we consider optimal with fifth graders provides an understanding of how we translated our original diffuse tool into a specific pedagogical technique and relates the translation to our basic assumptions about learning. With this background we can then proceed more meaningfully to the three sections on uses of the Grouptalk. Although these comments on procedure describe the optimal conditions for teaching children, specifically fifth graders, how to be good participants in a group discussion, they are not intended as a manual of instruction. For those who are interested in specific suggestions on how to lead a Grouptalk under a variety of conditions at the fifth grade level, there is a "Talk to Teachers" on this subject.

The Setting

Under ideal conditions the Grouptalk session takes place at a regular time each week in a special room equipped with chalkboard, tape recorder, and a set of definition cards. The leader and carefully selected children discuss a question which has been chosen in advance. The time allowed for the session—30 to 45 minutes—is sufficient for the discussion and a replay of the tape at the end. Some of the features in this description are non-essential in the sense that a Grouptalk could be held without them. We believe all are important if the session is to yield maximum benefits; we will try to indicate what each feature contributes to maximizing the effectiveness of the Grouptalk.

The Tape Recorder

The purpose of the tape recorder goes beyond increasing the enjoyment of the session and providing a powerful motivation for participation. Without it, the value of the Grouptalk as a pedagogical device is considerably diminished.* It permits

* Possibly the definition of Grouptalk should even include the tape recorder; but since we have always used one in our sessions we hesitate to amend the definition without exploration of the consequences of not using a tape recorder.

the children to confront the experience they have just been through, to observe themselves and others as contributors and as interacting members of a group. The children's interest in this confrontation is high. Given the choice, they always want

to listen to the playback. The leader, with questions and comments, uses their interest in the tape to heighten awareness of various elements that contribute to good discussion.

To some extent the tape recorder also acts as a constraint on irrelevance when the students are told there will be an immediate replay of the session to check the relevance of the discussion and the completeness of the summary at the end. It helps in other important ways, as we shall see in the next section.

The tape recorder is obviously essential when the Grouptalk session is part of a research project. It seems to be equally necessary when used by the classroom teacher whose main concern is evaluation. Its function in this context is elucidated by one teacher's comments after observing her first Grouptalk:

> "I was amazed at how much of the children's discussion I had actually not heard. Listening to the playback I heard details and comments I had completely missed. I found myself mentally remarking, 'I don't remember that part at all!'"

Later when she led a discussion she wrote,

> "I found I felt at ease in leading the children's discussion. . . . The knowledge that proceedings were being taped was part of the feeling of security. I knew I could then refresh my memory and evaluate the talk after the session was completed. Significant evaluation of the children's remarks made freely or triggered by the teacher's comments and directions cannot, judging from my experience, be accomplished without the help of the tape playback. It is impossible to take notes of any consequence while leading the discussion. A teacher is too busy keeping a sharp check on his compulsive desire to control proceedings and at the same time keep the children on the path."

This teacher is a highly experienced observer, skilled among other things, in taking notes on children in the classroom. It was significant to have her confirm our impressions that a teacher cannot function effectively and fulfill simultaneously the roles of Grouptalk leader and recording observer.

Definition Cards

A set of definition cards is not absolutely essential – although unambiguous communication of the definition of the Grouptalk plus its four rules is. We used five cards:

DEFINITION CARDS

CARD I

GROUPTALK
A Grouptalk is a small group of people who talk together to try to answer a question. They follow four rules:

CARD II

Rule 1: UNDERSTAND
Everyone understands the question before the group tries to answer it.

CARD III

Rule 2: CONTRIBUTE
Everyone tries to answer the question.

CARD IV

Rule 3: BE RELEVANT
Everyone keeps to the point and adds to it.

CARD V

Rule 4: SUM UP
Everyone helps to pull together the main points of the discussion.

Card I helps the leader communicate to the children what they will be expected to do. The definition structures the task as a group activity ("people who talk together") with a specific motivation ("to try to answer a question"). The first rule, *Understand*, might seem unnecessary. When the question, however, contains words that are unfamiliar to some of the students or when it admits of several interpretations, the value of clarifying its meaning before proceeding to discuss it becomes self-evident. This jointly assumed or explicitly stated interpretation of the question's meaning appears to be essential to the subsequent evaluations of relevance the participants will make. Rule 2, *Contribute*, helps the leader influence the participants' motivation to think and speak by setting up the expectation and goal that everyone contribute.

Rule 3, *Be relevant,* limits the acceptable contributions to relevant ideas ("everyone keeps to the point") that have not been made previously ("and adds to it"). Children make an immediate, correct evaluation of the relevancy of a contribution. They seem to perceive intuitively whether or not the point has some bearing upon the question. Since they often refer back to their interpretation of the question when there is disagreement over the relevance of an idea, we assume that the elucidation of the meaning of the question is an essential element in making the discussion effective.

The fourth rule, *Sum up,* describes at the beginning of the session an activity which takes place at the end. The definition is left somewhat vague. All the children need to understand is that at the end they will go over the ideas expressed in the discussion. How they will do this is not made explicit. The purpose of introducing the concept of the summary before the discussion has even begun is to alert the children to the task they will perform and thereby facilitate its performance. Knowing they will have to remember what has been said we think affects the amount remembered.

The definition of Grouptalk and its four rules together give purpose and direction to the group activity. When they are written down, the children are less apt to forget them and let the discussion degenerate into an unstructured bull session.

Definition cards, made ahead of time for convenience, focus attention on the task at hand without constant reminders from the leader. For the first few sessions each participant in turn reads one of the definition cards aloud, then paraphrases it. The activity is thus structured as a group venture in which each has a responsibility to participate and to think. Perhaps even more important to the learning process is the fact that we have identified a concept, given it a name to facilitate communication and thereby introduced the possibility of making the children aware of its exemplification during the discussion. The procedure followed in the Grouptalks is based on the assumption that effective teaching of cognitive skills identifies the skill for the student with the help of a label, then increases the student's awareness of appropriate times to use the skill.

The importance of the function played by the definition cards is clear-cut. When we presented a question previously used with Grouptalk novices to another group of comparable children, but

did not coach them in the techniques of the Grouptalk, the untrained children enjoyed their discussion tremendously but kept losing the thread of relevance and had great difficulty retrieving the few main points for the summary. A repetition of this unstructured type of session with the same group of children yielded even less effective time spent on the question of the day.

The Chalkboard

Once the discussion rules seem to be well understood, a participant reads the question for the day. Having the question on the chalkboard, visible at all times, is important. It permits the children to refresh their memories in a nondirective and potentially group-shared way. It also helps remind them to stay on the subject and provides an easy reference when, during the discussion, the children need to check the exact phrasing of the question to elucidate its meaning further.

The Question: The choice and phrasing of questions are critical because they bear strongly on what will be gained from the session. The questions we selected for our Grouptalks were related to a social studies curriculum being developed at E.S.I. and fulfilled three specific functions: (1) they elicited integrative thinking, (2) they helped evaluate understanding and (3) they provided practice in cognitive skills. Some of our more successful choices were:

"How would you learn the Bushman language?"
"What questions will we ask the anthropologist, Richard Lee, on Thursday?"
"Should Bushmen wear more clothes than they do?"
"What might an American find difficult about living for a year with a primitive tribe in Africa?"
"What do you think makes a Bushman happy?"
"In what ways are Bushmen and Americans alike apart from their physical structure?"
"How do humans differ from all other animals apart from their physical structure?"
"What difference would it make if baboons could speak a human language?"

Among other reasons, these choices were successful for inexperienced participants because the strategy required to answer them was sufficiently simple for our fifth grade students to

handle with little help from the leader. When the relevant strategy is too difficult much of the fun in the discussion is lost. Children intuitively know the strategy required to answer simple questions, ones with "yes" or "no" answers which only need supporting reasons, or questions that lead to an enumeration of items. Comparisons and multiple choices, which involve strategies of a more difficult type, are appropriate for experienced participants.

The Group

The particular children selected to participate in a Grouptalk inevitably influence the nature of the ensuing discussion and the learning it makes possible. The selection in turn is a function of the purpose the leader has in mind. The following guide lines derived from our experience apply broadly.

Size: Three to six children create the most effective group. With larger numbers it is difficult to ensure active participation by all members and to maintain a unity of focus.

Composition: Heterogeneous groups, boys and girls with a moderate range of intellectual ability, are preferable. When intellectually more homogeneous groups are set up, the slower children profit less from participation than they do when they are put with the better students. The brighter children achieve discussions in greater depth when grouped together, but they are apt to find the challenge of communicating their ideas to slower students exciting and beneficial. In this way they teach themselves. Having boys and girls in each group provides an extra spark to the interactions for a number of reasons, not the least of which is that boys and girls are likely to disagree on almost any given topic. Their different points of view lend stimulus to the session. Heterogeneity of personality also permits interactions in which the potentialities for learning are greater.

Group Continuity: Children almost always develop a sense of group solidarity by the end of their first Grouptalk. They ask for another session soon with the same people. Noting this in our early sessions and believing it was important to the success of the formal discussions to keep a high motivation for participation, we tried to maintain continuity of group membership. Subsequently we discovered that many of the benefits derived from participation in the sessions presuppose group

continuity. They arise from the special give-and-take of children accustomed to interacting with one another in the Grouptalk situation.

One particular persuasive reason for keeping the same group membership appeared when we removed Edna from her initial group and tried to integrate her into another well established one.

> We asked Edna to replace Donna, the only girl in a well functioning group of four. The boys, who had learned to accept Donna, objected. They said a Grouptalk with just boys would be better. Edna reacted to this rejection by disrupting the group discussion. A hitherto cooperative participant, Edna urged the boys to talk about other things during my absence from the room and even turned off the tape recorder.

After this experience we decided it would be better to break up old groups and form new ones rather than introduce a single new member to a well established team. Group continuity, we concluded, played an important role in achieving a good discussion.

The Leader

Although one of the goals in teaching children how to participate in Grouptalks could be to prepare them to lead discussions, here we will be concerned only with the adult leader, with the orientation that is essential for him, and with the directive and nondirective functions he performs.

Orientation: A crucial element in the success of a Grouptalk dscussion is the leader's orientation. He must accept the cardinal rule of this type of discussion and focus on teaching the children *how to discuss* while disregarding the natural urge to elicit information and to correct errors. The more the leader is able to withdraw from the group and encourage the children to talk with each other rather than with him, the more the students themselves take over responsibility for the discussion and the more they gain from it. At the same time, this helps reduce the leader's tendency to interfere in matters of content, and gives him a better opportunity to observe.

The first step on the leader's part in transferring to the children the responsibility for achieving a productive discussion usually takes place when the students raise their hands to answer the Grouptalk question. He explains this is unnecessary

and in other ways discourages comments directed towards himself. When a leader finds it difficult to relinquish control over the students, he subtly continues to direct the conversation through himself as mediator and, without realizing why, becomes frustrated by the ensuing unproductive Grouptalk session. He is dismayed on the one hand by the students' failure to think of things to say and on the other hand by the disorder of the simultaneous conversations that emerge almost as soon as he stops acting as traffic director. Patience is needed while the children discover they have a problem to solve, and tact in helping them find the solution.

For some people there is no particular difficulty in being nondirective with respect to content and interacting minimally during a conversation. The training of a clinical psychologist promotes this orientation. Teacher training does not. For this reason teachers invariably react with alarm at first. They see the cardinal rule as an insuperable hurdle. They may overestimate the difficulty even after they have led a successful session, confusing the injunction to be nondirective with a blanket prohibition on directiveness. Grouptalk leaders, however, must be directive. Furthermore, we believe they must make a conscious effort to communicate to the children, as much as possible, what it is they are trying to do because this is essential in teaching the children how to become good participants.

Directive Functions: The primary directive functions of the leader are threefold: (1) to guide strategy, (2) to keep the group relevant, and (3) to see that a summary is achieved. When the participants in the discussion are able to take over all of these functions themselves, the presence of an adult leader is unnecessary. Grouptalks can dispense with adults, but not with a leader. (Although several of our fifth graders led Grouptalks, the discussions were entirely different in character from those led by experienced adults because, without training, the children could fulfill very few of the directive functions.)

(1) *Guiding strategy:* When the students have finished reading the question, the leader calls their attention to Rule 1: Understand. This highlights the importance of everyone's interpreting the question in the same way. It is an important first step in carrying out differentiated activity that has been labeled and of which awareness is essential to a good discussion. If children refer back to this elucidation of the question when

disagreements arise, it shows that they have understood the basic requirement of a good discussion that everyone talk about the same thing.

In general, children proceed to answer a question without examining the strategy they use. With simple questions this is likely to succeed. There are times, however, when the leader's help in selecting a particular strategy is necessary, when without such direction the children either would not get started at all or would become hopelessly involved in side issues.

> One Grouptalk presented the students with a difficult problem of choosing the best among four alternatives. The question was, "Which of the following collection of objects is most like the collection of pictures Mr. Atkins showed you yesterday? Why do you think so?" As leader I suggested that each of the children in turn read aloud one of the alternatives presented. (Because of the complexity of the question, each student had a typewritten copy of the four alternatives.) After all the descriptions had been read, my next strategy suggestion was that one student re-read an alternative which the group would then proceed to discuss. The Grouptalk was very orderly and productive. Each of the students happened to decide on a different alternative. The usual strategy of all contributing together to produce one summary seemed inappropriate. But it was a student, not the adult leader, who suggested four separate summaries. The justification of the different opinions led to further productive discussion.

Complex questions give the leader an opportunity to comment on the strategy of the answer, to call attention to the *how* of the answer rather than the *what*. This, we believe, helps the child think better. The student eventually learns to make this unfamiliar distinction between the how and the what of a discussion by himself. He is then in a better position to improve both the how and the what.

(2) *Keeping the group relevant:* Perhaps the most difficult function the Grouptalk leader performs is helping the participants keep a relevant discussion going. As long as the group keeps talking—and to the point—the leader should not have to say anything. With adult groups accustomed to committee work, a leader might find it sufficient to contribute only a few sentences during the entire course of the discussion. Keeping a fifth grade group relevant is not as simple. The leader must be continuously alert and directive. Furthermore, he must try, whenever possible,

to verbalize what he is doing as leader in order to increase participants' awareness of the process. In performing this function he stops digressions, keeps the ball in the air, keeps the group focus unified and helps clarify the reason for the disagreements that arise.

When leaders help refocus the attention of the group on the main question, they reinforce the students' awareness of the importance of Rule 3: Be relevant. Generally the first sign that students have begun to take over a sense of responsibility in structuring the discussion is when they comment on the irrelevance of another child's comments. Participation in several Grouptalks sensitizes them when the discussion veers away from the question. Their judgment is usually accurate.

"Keeping the ball in the air" means a Grouptalk leader keeps the discussion alive without asking leading questions or volunteering information. Since good discussions are fruitful but not necessarily lively, sometimes the leader's patiently waiting in silence is an effective technique. The children may be thinking. The leader's ability to tolerate silences and abolish their awkwardness with a smile and nod of approval may work wonders for the discussion. However, except for occasionally calling attention to Rule 2: Contribute, there is little the leader can do during the discussion to teach the children how he helps keep it alive. Only under the special circumstances of teaching people how to become Grouptalk leaders is it appropriate to analyze the numerous techniques used to keep the ball in the air.

Sometimes in the midst of a lively discussion the group breaks up into smaller discussion units. It is the leader's function to weld these simultaneous conversations into a discussion shared by all. By commenting on what he is doing when he refocuses the group's attention, the leader helps the students increase their awareness of the basic elements in a good discussion. The tape recorder is a valuable asset here because in the replay the multiple conversations are unintelligible. Because of it children usually quickly learn to share the responsibility for keeping only one conversation going.

Disagreements frequently lead to irrelevant discussions, with the participants mired in the mud off side roads. To help them return to the main question and keep the discussion relevant, the leader can call attention to the cause of the disagreement, labeling it appropriately. This strategy is suitable for fifth grade

students only after extensive Grouptalk training—and then only when they are able to handle abstractions easily.

(3) *Helping with the final summary:* It is usually clear to the group and to the leader when the time is right to close the discussion: it is then the leader's responsibility to see, following Rule 4, that a summary is achieved. He accepts as adequate a brief listing of the main points. Higher order categorizations are infrequent. Inexperienced groups are less apt to enjoy the process and are less adept at it. A factor that contributes to the increased enjoyment is the frequency with which new ideas occur to the children during the process of summarizing. The opportunity to reflect on ideas the group has had and put them together generates alternative ways of considering the problem. When the leader calls attention to these contributions as new ideas, he increases the students' commitment to the summarizing activity and underlines the importance of the summary as an aid to thinking.

After the summary the children listen, usually with intensity and delight, to the tape recording of their discussion. The leader's directive function here is to help them note the digressions that occurred, check the items in their summary against the points made during the discussion, and call their attention to group factors affecting the discussion.

Nondirective functions: Supportive, nondirective functions performed by the Grouptalk leader are as important as the three directive ones discussed above. Without an implicit acceptance by him of the children and their ideas, it is impossible to create an atmosphere conducive to productive discussion. The emotional as well as the cognitive orientation of the Grouptalk leader is of importance to the success of the session. Unconscious hostilities can effectively silence children; they need to feel it is safe to express their ideas before they are able to have any. Without this implicit assurance the student truthfully can only say, "I can't think of anything." We have observed Grouptalk sessions degenerate into a hostile battle between an impatient leader and children unable to think of anything to say because the teacher had made fun of one of the students.

In addition to the numerous techniques already familiar to group leaders for conveying supportive attitudes, the Grouptalk provides a built-in way of boosting the self-confidence of participants: it offers the student a contrast between his initial

inability to think of any answer to the question and his subsequent productiveness during a session.

The Grouptalk session, as it has been described above, can serve three major purposes. Any given discussion could conceivably fulfill all three functions. However, in order to differentiate between them, we shall now consider in turn the uses of this pedagogical technique in the classroom, in curriculum construction, and in psychological research.

Use in the Classroom

Students Learn From The Grouptalk

The outstanding impression of an observer watching a typical Grouptalk session is that the children enjoy it. If one were to ask them what gains they derived from participation, probably the answers would be along the line of the spontaneous comments we have heard: student urging the leader to prolong the session, "Let's think of some more things to say so we won't have to go back to class yet," and "This talking together is fun." They consistently regard the activity as a source of entertainment, not learning. The stereotype that "You go to school to learn, not to enjoy yourself," probably is related to the children's perception of the Grouptalk session as fun, not school work. This is not the place to enter into a discussion of learning versus enjoyment in school. We assumed at the outset that a pleasant atmosphere would facilitate the acquisition of cognitive skills. On the other hand we felt it was essential to present the discussion sessions to the students as having a pedagogical aim. We said the Grouptalks would help them learn how to become a good participant in a discussion, specifically they would learn how to be more relevant and to summarize. This statement of aims by no means, however, covers the variety of cognitive skills, attitudes, and group participation skills we feel participation in Grouptalk sessions can develop and improve.

Cognitive Skill Training

Traditionally, time has been set aside in the school curriculum for training children in skills such as penmanship, drawing, singing, etc., in addition to the time necessary for acquiring certain factual material. Less obviously, time is also set aside for teaching another skill: *how to think.* This skill is developed, quite apart from the subject matter involved, through the outlining of topics, through dictionary and reference work, by the making of graphs and maps. Teaching children thinking skills is increasingly considered to be an important part of the regular school curriculum.

In this connection it is important to underline the fact that teachers do teach skills. One objection a teacher raised to considering the Grouptalk as a teaching technique is based on a failure to realize this. She said,

> "I question the value of the Grouptalk as a teaching technique because the teacher doesn't use it as such: she isn't in the role of the teacher for this particular discussion because she does not elicit information, nor does she direct the discussion."

We believe the Grouptalk provides further opportunities for learning how to think, with particular appeal for children who for various reasons reject the ordinary academic fare. It can lead to improvement in seven thinking skills:

(1) *Being relevant.* Relevancy, one of the stated goals of the Grouptalk, is achieved without great difficulty. Our experience indicates that with training there is always group acceptance of the stated rules that everyone should keep to the point, should add to points previously made and should not merely repeat what others have said. It is also our impression that criticisms of performance by other children are an important factor in accelerating effective participation. Average and even "slow" Grouptalk participants learn to call attention to irrelevance spontaneously. They comment on the digression and seem to take pleasure in doing so.

We found that the quantity and quality of relevant contributions increased markedly over the course of a few sessions. The inappropriateness in the Grouptalk of scholastic skills customarily associated in the children's minds with "doing good work," such as excellence in writing and spelling, probably has a beneficial effect on the production of relevant thoughts. Also the permis-

sive atmosphere of the discussions is conducive to the expression of individual style, often appreciated by the other children.

Whatever the reasons, and certainly the combination of the group's acceptance of their ideas and the pleasure in hearing themselves on tape is important, the fact is that children do become increasingly productive of relevant ideas. After a few experiences with the Grouptalk usually they are ready to tackle any question. For many, this is a big leap from initial hesitancy and feelings of doubt or inadequacy with respect to their capacity to contribute relevant ideas. The shift produced in self-image can be marked.

(2) *Summarizing.* With experience, children learn how to summarize the main points of the discussion and even come to feel the session is not complete without such a review. Their realization that the process of summarizing almost inevitably leads to new points makes them quick to identify as such an idea introduced for the first time in the summary. We have not yet tried to teach fifth graders how to improve the quality of their summaries.

(3) *Integrating.* By selective questions that require the students to integrate previously learned bits of information, the Grouptalk encourages them to exercise one of the most important thinking skills at man's disposal. Combining in new ways information previously acquired helps children gain fresh insights and broaden both their horizons and their base of understanding; they know something more than they did before. The something more, however, is not merely additional information. It is an awareness of new relationships gained by restructuring information. Integration is creative learning. It is a skill at which some children are quite adept before their introduction to formal discussions. Others, unfortunately, are woefully deficient in this respect.

Many Grouptalk questions we selected led the students to integrate the ideas and materials presented in their social studies course and to relate them to their own experience. Their answers to these questions (for example, "In what ways are Bushmen and Americans alike apart from their physical structure?") provided a learning experience in what might be considered a testing situation. In following the progress of individual children in their ability to handle this type of question we were surprised by the improvement of nonverbal, "poor" students. We were

delighted with their increased capacity to perceive valid relationships in imaginative ways.

The evident pleasure the children derived from the discussions increased our own enthusiasm for the Grouptalk because this meant it was an enjoyable way to learn more effectively. When new relationships are perceived by active participation in their formulation, we believe that the learning is more effective than when the integration of material is accomplished by the teacher and presented for assimilation. The child remembers best the things that he himself has structured, created, and contributed.

(4) *Categorizing.* Some questions are well suited for practice in handling categories such as "alike with respect to . . ." and "different from. . . ." They encourage the children to provide themselves with lessons in categorization. In one delightful session the children taught themselves the meaning of "tool" as a general term.

> In discussing the question, "In what ways are Americans and Bushmen alike?" Doris, a shy girl of only average ability, first produced a difference, "Bushmen don't get water as easily as Americans." Walter helped her express this as a similarity: "We both drink water." A little later Doris said Bushmen and Americans were alike because both had digging tools. The other three participants objected on the basis that they didn't remember seeing any Bushman digging tools, "They dig with their hands." Doris cautiously retreated to the more general point: "They still have tools," but the three boys stubbornly refused to understand her: "She said 'digging tools'." The argument became quite heated, with Doris increasingly frustrated by her inability to communicate with the others.
>
> Doris: "Well, we still both have tools, so what's the difference?"
> Harold: "Not the same kind of tools."
> Doris: "Not the same kind of tools, but we both still got tools."
> Harold: "But 'alike' it says (referring to the question). They don't have a shovel. . . ."
>
> On it went, for about ten spirited minutes. The leader had intervened unsuccessfully at first in an attempt to explain the basis of the disagreement; finally with the suggestion that they turn to other similarities. Doris reluctantly concluded, "They can't . . they don't understand."

When the group settled down and readdressed itself to the question, Walter said, "They both play games." Doris' rejoinder was, "We both don't play the same games!" The argument was resumed with positions reversed. Finally Doris reminded the boys of her point about the tools and concluded triumphantly "You two are trying to make the same point that I'm trying to make to you."

(5) *Defining terms.* Another Grouptalk with these same children was exciting because it focused on the definition of terms, the importance of everyone's using words whose meaning they have agreed upon, and of staying with definitions once given.

The question involved a primitive tribe in Africa. Walter helped explain the term "primitive" to the others who did not understand it: "It's like the dinosaurs . . . the way people lived long, long ago." Later in the discussion, after the group's first reference to Bushmen, I asked whether they considered them as an example of a primitive tribe in Africa. Walter and another student asserted positively that they were primitive. The other two participants, perhaps on the lookout for an argument, stated just as emphatically their opinion that Bushmen could not be primitive because they are alive now. According to them, the definition of the term Walter had given earlier equated primitive people with people who lived long, long ago. Confused by their confusion, Walter found it difficult to defend his position.

(6) *Pinpointing causes of disagreements.* After intensive Grouptalk training and with explicit help from the teacher, children can learn to recognize the three major causes of disagreements in a discussion: The children will learn to recognize whether they have merely been using words differently (as in the argument over whether or not Bushmen are primitive) or are arguing from different information about a situation (such as in the discussion about the existence of Bushman digging tools) or disagree because of different values (as was the case when one student in opposition to the others said that people should stay in their own countries).

Spontaneous recognition of the type of disagreement that is involved in an argument is a difficult skill for the leader to help the children develop. An essential aspect of this teaching we believe is to help the children recognize instances of each type of disagreement and correctly label them as "a difference of

meaning," "a difference of information," or "a difference of value." When students have mastered this skill they can initiate their own strategy for handling disagreements, thus becoming less dependent on adults for effective leadership. With guidance from the teacher and with much practice, they will learn that when they are arguing because of differences in the use of language, they should examine the definitions; that in arguments based on differences in information, there is the possibility of individual error which further observation, research or checking with authorities might reveal; and finally, that differences in values will not be resolved by redefinition, research or argument.

(7) *Becoming conscious of strategy.* Improving the strategy of answering questions is another important step in learning to think better and is facilitated by the Grouptalk. Children normally answer the question posed for discussion without being aware of following any particular strategy. They follow a plan of attack without knowing it, and they may change the plan in the course of discussion without being conscious of the change. They perceive only vaguely that different questions call for different strategies. Because of this, a strategy used successfully in one Grouptalk may be inappropriately carried over to another, somewhat similar, discussion.

> Quentin responded to the question, "How are people different from all other animals apart from their physical structure?" with the question, "Do you want what's alike?" He sensed it was the same problem that had been posed in a previous session with the question, "In what ways are Americans and Bushmen alike?"

This example shows that children, though unaware of it, learn the strategy of answering questions from participation in Grouptalks. With experienced discussion-group participants, the leader can call specific attention to the operating strategies. Discussion of strategy then leads to an ability on the part of the children to plan their mode of attack and to improve discussions.

New Attitudes

Participation in Grouptalks permits fundamental changes in attitude toward thinking. We stated that attitudinal changes are basic to our conception of the aims of education. The dis-

covery that Grouptalk sessions can help bring them about was a major factor in our initial enthusiasm for this pedagogical technique.

(1) *Thinking can be fun:* It isn't just for "squares." Children to whom this has never occurred find that thinking is fun even though it is an effort.

> Kay's teachers have always regarded her as poorly endowed and uninterested in things scholastic. She attracted attention by being disruptive. Her first comment on the Grouptalk was that it was hard work. She said she did not want to participate in a second one. But when the rest of her group decided in favor of another session, Kay changed her mind. She noted later that she found the sessions easier. When she was a veteran of seven Grouptalks, Kay derived a great and obvious pleasure from the process of trying to find answers, of using her mind to solve problems. In response to a question about generational differences in an individual interview, this daughter of poorly educated parents said, "The children would like to discover and find things, but the parents would have always stayed around close."

We find that after the first few sessions, there is a dramatic reduction in argument for argument's sake. Perhaps this can be attributed to an increased interest in the thinking process. In general, even disruptive children become more committed to using their brains for problem-solving. The children no longer feel an overwhelming need to compete with others in the group; they become interested principally in the content and flow of the discussion itself. Increased confidence in their ability to think, as evidenced by an increase in productive ideas, is undoubtedly a factor in helping children discover that thinking can be fun.

(2) *Listening to others can be fun.* One happy result of learning how to become a good participant in a Grouptalk is that other people's ideas are increasingly appreciated. The children, at first interested only in what they have to say themselves, discover a new pleasure: listening to others. There is a genuine give and take which replaces the initial egocentric teacher-directed remarks.

Group Participation Skills

Individual children have much to gain in social skills from effective participation in the Grouptalk. Thus,

(1) *Shy children talk more.* Our small group sessions generally increased children's confidence in their ability to express their ideas. Several students, typically reticent and noncommunicative in the classroom and other small groups, began to participate spontaneously during the Grouptalk. Other children's comments about their failure to observe Rule 2: Contribute, probably helped bring about the change.

(2) *Children learn to cooperate.* Participants learn a good deal about how to work together in order to achieve a good discussion. When everyone talks at the same time, one member of the group frequently takes on the role of policeman, telling the others to be quiet and listen. Eventually, most of them become more responsible about taking turns and listening to each other.

We suspect that the pressure from the group for all members to follow the rules of the game acts as a leveler. It teaches the individualistic, high-speed verbalizer to slow down and give others a chance to contribute while it encourages the slow, unaggressive child to participate.

(3) *Children learn to lead a discussion.* Children apparently learn a little about how to lead a discussion through observation of the teacher and by identification with him. Our initial experience in turning the leadership of the Grouptalk over to the children – even without instruction in leadership techniques – indicates that after participating in a few sessions they can lead a Grouptalk. Being a leader in turn produces further learning:

> A disruptive child, Harold, spent nearly the whole of his first Grouptalk session trying to obstruct the group's effort to tackle the question effectively. As leader in the fourth session (and with no adult in the room), Harold tried seriously to cope with Edna's refusal to cooperate. The lesson she taught him will not be forgotten easily.

Formal instruction in how to lead an effective Grouptalk by calling attention to the leader's techniques could yield enormous gains. Such instruction perhaps is appropriate only for older and very experienced groups. We have not attempted it yet.

The Grouptalk Aids Teachers in Evaluating Their Students and in Conducting the Class

Aid in Evaluation

When the question posed in the Grouptalk concerns material covered in class, the teacher can check on what has and what has not been understood. The teacher is usually correct in anticipating that the bright children were able to follow the lesson. It is harder to know whether the slow, inarticulate children have understood it sufficiently to integrate and transfer the information. Written tests, questions in class and individual interviews may not supply the answer. The Grouptalk discussion does, with questions such as, "What do you think yesterday's lesson told us about . . .?" The added phrase should make it necessary for the students to explain what they have learned, or to apply it, or both. Under these conditions even slow students find something to say and, since they are not forced to talk, they seldom perceive the group discussion as an evaluation of themselves. In addition, the discussion is likely to indicate possible reasons for their failures to understand. With such soundings available, the teacher is in a better position to decide whether to proceed to new materials or to spend more time with the old. Furthermore, he has gained valuable insight into the particular difficulties that are impeding understanding. An imaginative change in lesson plans might be the outcome.

Evaluation of the progress of individual children in their intellectual and emotional development is also facilitated by the Grouptalk. A teacher may question the value of a test that does not yield grades – and it would be difficult to justify grading an individual on the basis of a group's performance. Evaluation tools that do not permit marking nevertheless can be very useful. They are particularly valuable in the case of nonverbal children because they permit insight into the quality of their thinking which is difficult to gain by other methods.

> Comparing the transcript of the first session conducted with Kay with later ones, it is easy to spot an increased capacity for relevance, the apt generalization and the good summary. At the same time one notes a reduction

in argumentativeness and aggressive attention-getting devices. In her contribution to the first session there was little relevance to the question, "How would you learn the Bushman language?" "Yeah! And John always shows off and says, 'Ah ha! I've got everything and you don't.' So I want to learn to talk Bushman; and I can say, 'I know Bushman better than you'." By her seventh session Kay was contributing many pertinent observations, including the generalization, "Humans make art things. Animals can't." She has made significant progress.

When the Grouptalk leader is primarily interested in evaluation, the temptation is particularly strong to ask leading questions, thereby disregarding one of the cardinal rules of this type of discussion. But it is unwise to assume that without the probe no further contributions would be forthcoming because new ideas usually occur during the process of summarizing. It is better to wait until after the summary has been completed.

Change of Pace

The Grouptalk provides a pleasant change of pace from the customary classroom pressure involved in trying to teach children the basic skills of reading, writing and arithmetic while covering a staggering volume of factual material. The teacher can encourage the children to enjoy the discussion – and without feeling the guilt he might if they were just having fun! He knows they are learning, even though the children may not be aware of it. An incidental benefit from holding Grouptalks is that teachers will probably find it easier to lead a good classroom discussion when, because of the Grouptalk, students have already become accustomed to talking with each other rather than with the teacher. The teacher will also have gained valuable experience in how to lead such discussions.

Focus on the Individual

The small number of participants in the Grouptalk enables the teacher to give each child in the group the invaluable sense of being the focus of his attention. The student feels he matters, that his ideas matter, in short, that he is important as an individual. In large classrooms the student must frequently fight for the teacher's recognition, often doing so by behavior that

provokes punishment. In the Grouptalk the student automatically receives the teacher's approval – as long as his contribution is relevant. Furthermore, the student need not fear the loss of the leader's approval for being incorrect. The leader does not correct errors in the Grouptalk. Thus poor students, including many culturally deprived children, who tend to dislike school because they never do anything right, are able to feel at ease in the Grouptalk. This in turn enables them to participate actively and thus, eventually, to be more receptive to learning.

These sessions help the teacher get to know his students. When they interact in small groups where the teacher's role is restricted to the formal aspects of maintaining the discussion, he can learn a great deal about the individual student, much more than he is likely to learn in the classroom situation, in an individual interview, or even in other types of small group discussions. The contrast between the latter and the Grouptalk is especially vivid in this respect. Children reveal hidden facets of their personality under the stimulus of the Grouptalk situation.

Grouptalks for Teachers

Another use for the Grouptalk related to the classroom is in teacher training. Many of the problems beginning teachers face can be examined more fruitfully by means of Grouptalks than formal lectures. We also feel there are many questions relating to educational goals and classroom procedure which it would be meaningful, even for experienced teachers, to discuss in Grouptalk sessions.

The Grouptalk in Curriculum Construction

In constructing a curriculum, questions of evaluation inevitably arise. Does the course do what it is supposed to do? The Grouptalk is particularly well suited to help answer this ques-

tion when the curriculum builders are more interested in testing for increased understanding than increased factual knowledge. By providing children with an opportunity to apply to a new situation basic concepts learned in the course, the Grouptalk can act, as Bruner suggests evaluation should act.

> ". . . as a form of intelligence operation to help the curriculum maker in his choice of material, in his approach, in his manner of setting tasks for the learner." (Bruner, J. S., *Toward a Theory of Instruction*, Cambridge, Mass., 1966, Harvard University Press, p. 30)

Since there is increasing emphasis, in the construction of new courses, on teaching for understanding, we will describe several ways we used the Grouptalk to provide feedback for the construction of E.S.I.'s elementary school social studies course.

At the beginning of the 1965-66 academic year we asked the question, "What might an American find difficult about living for a year with a primitive tribe in Africa?" to give us an overall evaluation of the summer session. We compared responses of four groups of children who had attended the five week experimental summer session with those of seven other groups who had not.

We also asked more specific questions of the summer session students who had been told at the beginning of the course that there would be no grades. We wondered how much understanding of the material would be retained after an interval of two months. We asked questions such as, "How would the first American learn to talk Bushman?", "What do you think makes a Bushman happy?" and "In what ways are Bushmen and Americans alike apart from their physical structure?" We were impressed with the vivid retention of concrete information which the children could use effectively in the new contexts presented by these questions. Although many of the basic concepts presented by the curriculum were still available to the children, some had never been understood. The question, "How are humans different from all other animals apart from their physical structure?" revealed confused views of human technology, communication, and social organization as distinct from the behavior patterns of other animals. This question was also helpful in suggesting content to add to the curriculum by showing the difficulty children of this age experience in handling comparisons which involve differences between groups. The discussion un-

derlined the need for cognitive skill exercises that could provide training in how to handle comparisons.

We also used the Grouptalk to help evaluate the children's understanding of specific lessons. In one case, classroom observation showed that only the bright students had understood the lesson. We did not know why the others had not. The Grouptalk discussion clarified for us the sources of their confusion. Harold misunderstood a sequence of drawings depicting in order an American boy, then the boy with his family, their neighborhood, their community, etc., because he was put off by the shift in visual perspective from a horizontal picture of the family to a vertical view of the neighborhood. Quentin failed to see that each picture in the sequence represented social units of ever-increasing size to which individuals belong.

> "When Mr. Atkins started out with the first picture on the board, he could have said that we could have lived, or I could have been the boy who lived in that neighborhood. And then he started to get to Massachusetts. And then he started to get to the world. And I didn't know what he meant when he got to the world."

We conducted a Grouptalk in another case because classroom observers and the teacher were convinced that none of the students had understood the difficult lesson on animal communication. They reached a different conclusion after reading the transcript of five students' responses to the Grouptalk question, "What difference would it make if baboon troops could speak a human language?" Apparently all but one of the students had grasped the basic concepts. Again the discussion suggested ways in which the lesson might be improved. When the Grouptalk was used in evaluating specific lessons for feedback to curriculum builders, we found it was often helpful in suggesting possible changes as well as providing an evaluation.

Another problem area in the construction of curricula concerns the type of test appropriate to the course. Where the goal of the course is to promote understanding of basic concepts it is particularly difficult to package a good testing unit. We suggest that some of the questions used for evaluation feedback in the construction of the curriculum might be added here. The Grouptalk, as a classroom evaluation device, reinforces the goal of teaching for understanding since it does not permit grading of individuals. Yet it can be helpful to the student, the teacher

and the school administration in providing some measure of the effectiveness of the course.

A third way in which the Grouptalk is relevant to curriculum construction is in teacher training. One of the most far-reaching aspects of the development of many courses is the need to give specific training in how to teach the new course. Often this is not a matter of just imparting information. It involves the structuring of attitudes. Without understanding and acceptance on the part of the teacher of the goals of the course the transmission of the material to the student will introduce misleading distortions. We presented a group of student teachers with a question designed to focus their attention on the main aims of the E.S.I. social studies course ("What do you think the main emphasis of this course will lead children to conclude?"). This led them to formulate the course goals for themselves, achieve a clearer understanding of what they were, and feel better prepared to teach the new curriculum.

The Grouptalk in Psychological Research

The Grouptalk originated as a method to investigate children's thinking while instructing them in some cognitive skill. This basic research, we hoped, would have applications in education. Our enthusiastic investigation of some of the applications led us, almost from the beginning, to bypass the basic research. Consequently this section of the paper is not a report on research completed. It tells why we believe our pedagogical tool, the Grouptalk session, offers the research worker in psychology, particularly cognitive psychology, a rich observational milieu. It also describes unsystematically some of the phenomena observed in discussions with fifth graders.

The Grouptalk Generates Psychological Data

For psychologists the most important advantage of our formal

discussion groups is that they encourage children to solve aloud a problem of interest to them. Grouptalk sessions motivate children both to think and to communicate their thoughts verbally. The children's feeling of ease in the situation is enhanced by a supportive adult whose limited directiveness minimizes interference with their thinking. Nothing artificial is introduced to distort the thinking process. The young participants become engrossed with the question at issue and their interactions with one another. Their thinking is stimulated. Their thoughts are verbalized. Communication is gratifyingly high. There is much a sensitive observer can learn from students' interactions in this informal, small "naturalistic" setting. Potential uses of the data collected are unlimited, depending upon the interests of the research worker, i.e., children's thinking processes, use of language, social and emotional development. The Grouptalk as a data collecting device has much to offer.

The increased willingness of children to think and to think aloud in the Grouptalk is seen in a comparison we made between the way four children dealt with a question presented in a Grouptalk with the way four other comparable students handled it in individual interviews. The question evaluated their understanding of the previous day's lesson. In both groups the brightest student had followed the presentation, the other three had not. The individual interviews taught us little more, even with prodding and a few leading questions. The Grouptalk discussion, on the other hand, enabled us to see where the weaker children wandered off the track by identifying the sources of their confusion.* In this case the interaction among the children following the rules of the Grouptalk produced a marked increase of significant verbalizations.

* One of these impressed us as being so basic that we felt we had learned something significant regarding thought processes of average fifth graders: when presented with schematic pictures in series they have difficulty in understanding that the story told by the series of pictures is a function of their order as well as their content The ability to use the abstract concept of order is not to be taken for granted at this age.

Relevance as a Skill

When we formulated our project we intended to teach children how to be relevant and thereby increase their capacity to be good participants in a discussion. After a few sessions we

noticed the students were relevant most of the time. Our hasty conclusion was that we had taught them how to be relevant. After more careful consideration of the Grouptalk protocols we realized we had not taught them this: our fifth graders already possessed this skill. We were affecting their motivation to be relevant, increasing their commitment to the task of answering the question and their desire to extricate themselves from irrelevant discussions. The Grouptalk is a good tool for the observation of this interesting psychological ability, the judgment of relevancy.

Our initial observations suggest there is an immediate perception of relevance at this age once the question and the statement are understood. The statement is held up, as it were, to see whether it fits with the question, belongs to it. If there is some doubt about the meaning of either the question or the statement, if either image is fuzzy, then it is difficult to judge the fit, the relevancy of the statement. By following Rule 1, Understand, we try to establish group consensus on the meaning of the question and hence ensure a common criterion with which to judge the statement's relevancy. This helps the participants talk about the same thing and know when they are off the subject. Several children spontaneously noted their own irrelevance. Two or three times students prefaced a statement with the remark, "I know this is off the point, but. . . ." There were other comments during disagreements such as, "That's not what the question's talking about . . ." and "The question says . . ." which indicate the students were using the meaning of the question as a criterion to assess relevance. At other times the leader questioned the relevance of a particular contribution. The children's responses show that this query had the effect of directing their attention to the judgment, but not determining it: sometimes they thought they were relevant, other times not.

The Effect of Training on Relevance and Other Cognitive Skills

Inherent in the Grouptalk technique is the possibility of investigating the effect of training on the various cognitive skills which it can enhance. Our experience primarily concerns relevance training. Fifth graders, we have seen, know how to be relevant; a few know what the concept means, the rest learn it quickly. Furthermore they do not find it difficult to stay with

a topic when they are sufficiently motivated to do so. Under ordinary social circumstances there is little motivation to remain relevant in a discussion, consequently there is a high degree of irrelevance. In the classroom, relevance is usually maintained at the expense of true discussion and is therefore a different phenomenon. The Grouptalk sets up a special situation which motivates the children to remain relevant in a discussion.

The effects of the training requirement that rules be followed are dramatic. When we presented the same discussion question to two comparable groups of children, coaching only one in the techniques of the Grouptalk, we found important differences. The former held a good discussion of the question for about a half hour; the latter would not keep to the point, but merely communicated their free associations with delight. Repetition of such unstructured sessions tends, in our experience, to waste much of the time allotted to discussing the question for the day. The children do not, as we thought perhaps they might, develop their own rules for structuring the discussion. They are not frustrated by the rambling talk. In retrospect it is easy to understand why: the children enjoyed the opportunity to express themselves and communicate with each other in emotionally significant ways. Nothing motivated them to remain relevant to the Grouptalk question except the leader's feeble efforts to direct attention to the question. Training, on the other hand, alters the motivational situation.

Although our attempts at training cognitive skills by means of the Grouptalk were primarily in the area of relevance, we found that increasing self-awareness affected other skills too. Many fifth grade children did not know what it meant to summarize a discussion and, at first, were unable to do so. With practice they became adept. They even came to recognize spontaneously one of the by-products of the act of summarizing: a new idea, one that had not been thought of during the discussion. But we think the quality of the summaries achieved could be improved by more specific guidance from the leader. The effects of training on this cognitive skill – and others – could be investigated systematically by means of the Grouptalk.

Sources of Irrelevance

What are the sources of irrelevance? An impressionistic ap-

praisal of data from roughly thirty Grouptalk sessions suggests a wide variety of causes.

Sometimes a student digresses because he is reminded of a personal experience which he cites as an illustration of a point, then, in his enthusiasm, is carried far afield. The child's association may turn into a confabulation. He weaves a fantasy which departs rapidly from relevance.

Concrete minded students often happily contribute facts from the classroom lesson in the same general area as the topic under discussion but with no bearing on it. They too allow the associative process to carry them away, or perhaps they want to impress the teacher with their fund of information.

Another reason children digress from the discussion question is that they lose interest in it. Understandably they are tempted to start talking about something else. One group lost interest in a question because it was simple enough to be explored in depth quickly. Another time a group bogged down and wanted to change the subject because they could not devise a good strategy to approach it. The question, "When is it all right to cheat?" was too general for them to handle easily with minimal help on strategy – the leader for this session was a fifth grader.

A major source of irrelevant comments, typical of early sessions before the members of the group have learned to participate effectively, is the interjection of extraneous aggressive personal attacks. Two people line up in attack against the others, for example, the boys against the girls. In one group, at first, whenever a boy and girl disagreed on a point there were frequent cries from the sidelines of "He's up! She's down!" In subsequent sessions with these children this type of remark, with its tendency to interfere with relevance, appeared less frequently. The focus of the group's attention was more on contributing an idea than on winning the battle of the sexes.

Imprecise thinking accounts for many instances of irrelevance. Children tend to make a rejoinder to a point which does not take in the full implications of what has been said: they react to only a part of the comment. One might say the relevance here is only word-deep. For example, when asked to discuss differences, frequently children mention similarities and vice versa. They confuse likenesses and differences, which are types of comparisons that they associate together. Asked how Bushman and American children are alike, they answer in the

same breath, "They both play games but the games are not the same," and then proceed to describe the differences between the games. In one instance the leader made a determined effort to help the children be precise in their thinking:

> Every time the students cited a difference the leader said, "That's getting into differences. Let's pick out something that's alike. . . ." The result was an increase in relevant ideas. One of them came from the undistinguished scholar, Kay: "I know! They have a language and we have a language." Another child, stimulated by this concentration on similarities, posed interesting questions that had not been raised in class: "Do Bushmen have to tell time like us? Do they have a way of telling time?"

Inadequate language skills may also be at the root of some failures to remain relevant. There is considerable use of words which are related but not really precise expressions of what is meant. It is not surprising to find irrelevant rejoinders to such poorly expressed contributions.

The Discussion Question and Its Relationship to Thinking

There is much to learn about additional aspects of children's thinking which are functions of the nature and order of the question posed. Our experience suggests that perseveration of thought, difficulty in leaving a topic and turning to a new idea, is related to the way the question is asked, and that it occurs when the question is in the conditional form.

> We asked one group to discuss the question, "What do you think *would make* a Bushman happy?" The children, understanding the conditional form, correctly focused on changes that could be introduced into the simple technology of this society to make the Bushman standard of living more like our own. The leader recognized the question had been worded poorly to assess their understanding of Bushman culture and tried, unsuccessfully, to shift the students' attention to a consideration of what makes Bushmen happy given the present state of their technology. With another group of children we formulated the question more appropriately in terms of our goal by asking, "What do you think *makes* a Bushman happy?" Their responses, as we anticipated, did center on the feelings of Bushmen. The interesting point is that later when we asked this group the question in the conditional form,

the students found it easy to make the shift and think of technological advances Bushmen might enjoy.

Additional evidence bears on the importance of the nature and order of the discussion question presented. Children apparently find it difficult to make the shift from discussions of differences between two classes of things to discussions of similarities between them. It is easier for them to make the shift from similarities to differences.

Some questions because of their wording are well suited to show how children handle definitions. In connection with the question, "What would an American find difficult about living for a year with a primitive tribe in Africa?" the use of the term "primitive," a word unfamiliar to the majority of our fifth graders, proved to be a source of rich observations when we did not interfere with the children's definition.

The Grouptalk as a Source of Incidental Observations

Some of our observations about the nature of children's thinking do not relate directly to the formal character of the Grouptalk or stem from the choice of the particular question being discussed. We have labeled them "incidental observations." We regard the opportunity the Grouptalk provides for making them as important since we believe that hypothesis building in the area of cognitive processes should proceed inductively from observation as well as deductively from the axioms of theory. The particular phenomena described here and in the Whipple-Washburn report* are familiar, perhaps under other names, to people interested in the thought processes of children. They are indicated here to illustrate the wealth of data embedded in Grouptalk sessions.

* Whipple, B. S. and Washburn, D. N., "Preliminary Report on the Think-in," Educational Services Incorporated, Social Studies Program, July 1965.

Conclusion jumping: when presented with a question that could be answered with a "yes" or "no," the children give an immediate answer, then stop. One bright student pointed out that children almost always know right away what they think the answer is, but then the adult leader gets them to explain why. The children function at a preferential rather than a reasonable level,

and do not feel the need, as an adult might, to justify their opinions.

Perseveration of the question: sometimes students repeat the Grouptalk question in a rather formal way. Does this indicate, perhaps, that the question has not been understood?

Confusion of object and name: children do not differentiate between the object and the name of the object. An example will illustrate this common type of confusion. A leader suggested that the group pursue a point raised by one of the children (Bushmen sleep in huts, Americans in houses) by asking, "What is alike about these shelters?" A student promptly supplied the answer, "They both begin with 'h'."

Misplaced concreteness: children frequently utilize concrete instances inappropriately. Piaget describes children of this age as concrete minded. We observed that the greater ease children feel when dealing with concrete examples in many instances leads them to weaken the discussion.

> When his group was attempting to differentiate between man and all other animals, Neal commented, "We don't have the same language." Kay agreed, "Yeah! They meow and we don't." She reduced the universe of discourse from all animals to cats, to her pet cat in fact. Subsequently the group's discussion centered on the difference between man and cat. The broader issue disappeared from sight.

Kay is typical in her inability to make effective use of the concrete case to supply useful generalizations. The example illustrates a course children's discussions frequently follow as they slide into unproductive by-ways.

The students' difficulty in utilizing concrete instances well is demonstrated in the numerous discussions about whether two groups could be alike with respect to "x" if the members of the set "x" are not identical. The children seemed genuinely puzzled as to how Americans and Bushmen could be alike in using tools when the tools they had were different.

> When Walter argued that the phrase "both have tools" is not the same as "they both have the same tools," Howard insisted, "But the question says, 'How are they alike, alike, alike . . . ?'" Howard seemed to be equating the terms "alike" and "identical." He had difficulty in thinking of

a Bushman digging stick as an instance of the category "tools."

Confused abstractions: mixing different levels of abstraction is another common phenomenon at the fifth grade level. Part of the difficulty in handling abstractions comes from children's unawareness of different levels of abstraction and of the advantages to be gained, under certain circumstances, from using the more abstract concept. This ignorance seems to be at the basis of their poor categorizations in the summaries.

> When Kay helped compile for the summary a list of items her group had discussed, she mentioned in one breath "bracelets, necklaces, jewelry." I asked her later whether there might be any advantage in using the term "jewelry" rather than "bracelets" or "necklaces." She felt they were equally good terms, to be used interchangeably. She did not know that "jewelry" is a more inclusive concept than the others. She could not find it more useful for purposes of summarizing.

Another source of difficulty in handling abstractions is the tendency we noted for children to interchange the part for the whole in their discussions.

We mention these various phenomena observed in the course of our Grouptalk sessions primarily to illustrate our statement that the Grouptalk permits ample opportunities to observe children's thinking verbalized under non-experimental conditions. The unsystematic classifications we have used have no particular merit. But perhaps they are suggestive of ways in which a more sophisticated theoretical approach could utilize the Grouptalk to increase our understanding of children's thinking.

Some Unanswered Questions

At the end of the E.S.I. 1965 summer session, which marked the completion of the first ten Grouptalks, we compiled a list of questions about our new pedagogical device. Three months

later, after another two dozen discussion groups, we had tentative answers for some of the questions but the list of questions had become longer. Success breeds research. Hopefully, future sessions will help us answer these added queries as well as raise a number of new questions. Taking stock of our unanswered questions in May, 1966, we felt they concerned: (1) the Grouptalk as a technique, (2) transfer of training from the Grouptalk and (3) theoretical issues in psychology.

The Grouptalk as a Technique

Having made good progress in achieving the ostensible pedagogical aims of the Grouptalk with fifth-grade suburban students, we wondered whether the technique was adaptable for other age groups. How successful would the Grouptalk be with secondary school students, with college students and with teachers? What modifications in procedure are necessary? In the other direction on the age continuum, we wondered at what grade level children can first be taught to participate in Grouptalks and what changes in technique are necessary for discussions with younger children. At the end of the school year we began to investigate these questions and found it was possible to hold brief discussions with groups of three or four first graders. After one session a bright girl explained the procedure to another child, then asked me, "What question are we going to discuss today?" We also worked with emotionally disturbed and shy children. Because the initial results were promising, we chose several problem children for our more intensive training efforts. These exploratory sessions opened another significant area for research: Grouptalks as a tool for first-grade teachers and school psychologists to use in the socialization of the young child.

Further investigation of the optimal and maximum size of the discussion group should be made in conjunction with varying the age of the participants and the amount of their previous participation in Grouptalk discussions. Two is clearly the minimum size. But we have no idea how large the group can become and still remain effective.

The composition of the group, in terms of sex, personality, cognitive style and intelligence, is relevant to the questions of optimal and maximum size. The most important question about group composition concerns the effectiveness of Grouptalk in-

struction with children who are far below the average suburban middle class child in academic ability. This would include children who do not meet this standard for a variety of reasons. In our sessions with fifth graders this year we had one academically retarded child who was unable to participate effectively during the single opportunity offered to him. Would additional participations have altered the situation? Will children from an anti-intellectual environment who find few positive values in school find learning easier with the aid of this pedagogical technique? We are particularly interested in what the Grouptalk can do for children who, for one reason or another, are not good classroom performers, whose need for rewarding school experiences is therefore proportionately greater. In a sense these are the children who have the most to gain from innovations in education. Will Grouptalk discussions help them? Our impression is that they will. But extensive observation of individual students will be necessary to answer this question.

Related to this concern for the academically alienated child is our deep interest in children's participation in discussions of emotional and moral issues. We have barely begun to study the wide range of discussion questions that can be used successfully in Grouptalks. With our first graders we used two questions designed to elicit feelings. The cognitive emphasis in the choice of questions we used with our fifth graders was on the needs of the social studies curriculum project. In one case we made an exception and asked the children to discuss the question, "When is it all right to cheat?" The students discovered they disagreed on basic issues and achieved greater clarity about their own thinking in this area than they had previously had. The way they handled the question indicated the value of broadening the scope of Grouptalk questions.

Rarely does the school environment provide students with an opportunity to confront seriously their own thoughts and emotions on important dimensions of experience. Sometimes the subject matter of the social studies curriculum approaches these areas. But the large classroom discussion does not encourage the individual to integrate the lesson with his own deeply felt emotions. The small group session can. Perhaps the Grouptalk can help implant these emotionally charged discussions in the school and make them part of our curriculum. Socrates said the aim of education is to know oneself. Freud and Whitehead

have said the same thing in other contexts. A student can grow in self-knowledge by learning how to communicate with others on subjects about which he feels deeply. But our schools rarely find the time to help the students in their quest for this type of knowledge.

Much work has been done on the social-psychological factors which affect group discussion — why some people's ideas are accepted by the group while others find their ideas frequently misunderstood. The Grouptalk provides an additional type of group situation in which these generalizations can be tested. Furthermore, systematic examination of the Grouptalk in the light of these findings should increase its effectiveness.

For example, an important area for investigation of the Grouptalk concerns the effect of the leader's personality on the discussion. Will strict adherence to the rules which define the leader's function make it possible for discussion groups to work well under people with a wide range of personality characteristics? Or will we find that some aspects of personality are essential variables in determining the success of the session?

We began, but have not yet completed, essential research on the best way to conduct a formal group discussion. We feel there is no single best way to conduct a good Grouptalk. The procedure must be tailored to the age and capacities of the participants involved and to the basic aims in holding the discussion. What then is constant in the Grouptalk technique? What stays the same with these wide variations in method? Further experience with different types of groups is needed for a definitive answer. We assume now the common elements will include: (1) a definition of Grouptalk plus Rules 1, 2 and 3, which facilitate and increase the participants' motivation to stay relevant, (2) a leader whose primary function is to direct strategy and keep the group relevant but who also offers support to the group in non-directive ways, including his adherence to the rule that he focus on the process not the content of the discussion and (3) a tape recorder.

The optimal way of introducing the Grouptalk rules poses a related problem. Should the rules be given to the students at the outset? We are convinced that children will not evolve the rules themselves when left to their own devices. But what if a leader presented the rules following a bull session? Would the contrast effect make for better participation in the long run?

Elementary students welcome rules; adolescents rebel against them. Would the latter be more willing to accept the formal structure of the Grouptalk after they had been allowed to ramble freely?

In our instructions to the participants we have done little so far to elaborate on ways in which summaries can be made. Further experimentation in this area is necessary, especially with older groups. The full potential of the summarizing process in the Grouptalk has not yet been explored.

Finally we come to the question of how one trains people to be good Grouptalk leaders. The method differs for training adult and student leaders. We have taken initial steps in exploring both of these areas. For the adults we have prepared a thirty-page "Talk to Teachers" describing the sessions held with fifth graders, what they accomplish and how to lead them. We believe that after reading this booklet the prospective leader should be given an opportunity to ask questions about the technique, participate in a Grouptalk discussion himself, listen to the tape recording of a children's session and then lead a session himself which he can discuss with a trained leader.

Our experience in the area of training children to become Grouptalk leaders is limited to the three instances when the adult leader presented a question for discussion, then asked a child to take over the leadership and left the room. The playback of the tape showed the children had learned something just from watching the adult leader during their previous Grouptalk sessions. The problems involved in formal instruction present a tremendous challenge.

Transfer Effects of Grouptalk Participation

We have discussed some of the effects of participation in a series of Grouptalk sessions on children with different personalities and capacities as they are seen in subsequent Grouptalk performances. We feel what they have learned can be carried over into other discussions, perhaps into committee work. But so far we have only been able to ask, not even begin to answer the more important questions – questions about transfer of training. Research is needed to evaluate our further convictions that: (1) the effect of Grouptalk participation can be carried over into other areas, both emotional and cognitive, (2) skills de-

veloped in this formal small group discussion can be utilized in the students' performance in class, and (3) these new skills will be evident whether the student is interviewed orally or presented with a written assignment.

We do not believe there will be a direct carry-over in the *amount* of participation from the small group to the classroom. In fact, initial observations of our more experienced participants indicate that there is a qualitative effect involved. Some highly vocal students become less so after their Grouptalk experience. Previously they had talked all the time in class. Subsequently they confined their contributions to relevant ones. We think it is the *quality* of the participation that will provide evidence of transfer of training.

Teachers frequently ask us whether content learning takes place during the Grouptalk sessions because they are concerned and wonder how deeply embedded incorrect information will become in the students' minds in view of the firm prohibition against a leader's correcting mistakes and conveying information. If the teacher did nothing during the classroom periods that followed to provide clarification of these errors, would the students retain the incorrect knowledge firmly for having acquired it in a small group? In general, one assumes, content instruction is more effective in a small group than in a large one. Hearing a bit of information used by a contemporary in the context of trying to answer a question might make a more vivid impression, especially if the adult present does not correct the statement and therefore gives the impression of approval. Furthermore, the information is embedded concretely in a problem solving situation in which the child has been an active participant. Learning of incorrect facts should occur under these conditions.

We know very little about how well children retain information given in a Grouptalk session. We conducted individual interviews with participants three days after the group session, with another adult presenting the same question previously discussed in the Grouptalk. The individual responses clearly demonstrate the short-term influence of the group discussion, with a high degree of correspondence between the items. (A bright girl, who had said nothing during the discussion, recalled ten of the twelve points from the group's list.) Few new items are added during the individual interview. The ones that are added tend to be confabulations or extrapolations from the child's ex-

perience—an interesting subject of investigation itself. We made no measurement of long-term effects on acquisition of information in the Grouptalk session.

Theoretical Issues

Does self-awareness lead to better performance? One of the basic assumptions of the Grouptalk as an instructional technique is that learning and performance of cognitive skills involved in a good discussion are enhanced by an increased awareness of the process. We feel that our experience supports the validity of the assumption. We explored this issue briefly.

The procedure used initially to introduce the Grouptalk to children did not produce the type of good discussion we had in mind. We had called their attention to the rules *during* the discussion. This gave insufficient emphasis to the awareness of the process. We thought that learning could be speeded up by calling attention *at the outset* to the factors involved in a good discussion, identified for the children as specific rules to follow. To help in the communication of the rules we labeled each one with a key phrase. There was a rapid improvement in the quality of the Grouptalk discussion with these attempts to make the discussion process more salient.

It is challenging to contemplate the amount of data Grouptalk sessions could provide to test the generalization: increasing children's awareness of the nature of cognitive skills and of their appropriate use will result in improved intellectual performance.

Our investigations have also raised a number of questions about relevance. When we discovered that the fifth graders already knew how to make judgments of relevance before they became Grouptalk participants, we wondered about first graders and found that they did too, on the whole. This left us with the questions: When and how do children learn to discern relevance?

If our conclusion is correct that we only affected the children's desire to remain relevant and facilitated their doing so, then we must ask what factors in the Grouptalk situation affect the participants' wish to remain relevant. We feel the various features of the Grouptalk all work in the same direction. But at this stage we do not know which are the essential ones. Further research with the Grouptalk should help clarify some

of the fascinating questions it has already raised on the subject of relevance.

Concluding Remarks

The Grouptalk is a pedagogical tool devised to teach children skills that are not the primary focus of other types of instruction. Its success in this respect with fifth-grade suburban students is clear-cut: children learn to become good participants in a small group discussion and to enjoy the process.

By adhering to the Grouptalk rules children learn how to stay relevant and to produce good summaries. They also enlarge their capacity to deal with intellectual concepts by developing thinking skills. Other advantages for the student of participation in Grouptalks belong in the realm of social learning – how to interact more effectively in a small group.

These benefits of participation in a series of Grouptalks are in proportion, we believe, to how carefully the leader communicates awareness of the process, keeps the discussion relevant and avoids directiveness with respect to content. The leader who is able to withdraw from interactions with the students, encouraging them to assume the responsibility for the discussion, is the one who uses the Grouptalk most effectively.

The Grouptalk allows the teacher to evaluate the work of the classroom without the use of tests. It is particularly valuable when there is no other quick, easy way for the teacher to discover how much the children have understood of what they have learned. The teacher who observes or leads a Grouptalk discovers an open window to the understanding of aspects of children's thinking in general and to the personality of individual students which he would not otherwise have.

Initial explorations indicate that with modifications of the procedure developed for suburban fifth graders, the Grouptalk can be used effectively with other groups, and for other purposes.

We think it can be used with younger and older children and with ones from different backgrounds. We believe it can be used effectively with adults, for example, in teacher training. Further research is needed to show what the Grouptalk has to offer for the schools. Because of its usefulness as a tool for evaluating understanding, curriculum builders can use the Grouptalk to help in the construction of their course of study. Psychologists can use this new tool to study the cognitive and emotional development of children. It enables them to observe children with a minimum imposition of experimental constraints, and therefore introduces few distortions into the normal thinking process. The unanswered questions about the Grouptalk itself provide a source for fruitful investigations. Clinical psychologists may find in this technique another way of helping children become more mature, a way which eschews interpretation and therefore is particularly suitable for use in the schools. We invite others to join with us in the exploration of this technique and its applications.